LETTERS TO THE EDITOR

A study on the possible association of dysfunctional uterine bleeding with bacterial vaginosis, mycoplasma, ureaplasma, and *Gardnerella vaginalis*

EDITOR,—A number of studies in the recent years have shown that bacterial vaginosis or its associated micro-organisms mycoplasma/ureaplasma may be associated with various obstetric and gynaecological complications such as pelvic inflammatory disease and infertility,[1] premature rupture of membranes and preterm labour,[2] plasma cell endometritis,[3] non-specific urethritis in male partners,[4] and in our previous study[5] we showed colonisation of the endometrium by mycoplasma and ureaplasma in patients with bacterial vaginosis

The purpose of this study was to see if there is any association between dysfunctional uterine bleeding (DUB) and mycoplasma, ureaplasma, and/or bacterial vaginosis.

Ten patients, all with dysfunctional uterine bleeding admitted for abdominal hysterectomy, were recruited for the study. Patients were between 38 and 48 years (mean age 44) and all except one were parous. Appropriate ethics committee approval and informed consents were taken.

A detailed history was taken, particularly obstetrics and gynaecological, and any history of bacterial vaginosis or troublesome vaginal discharge. A preoperative high vaginal swab for microscopic diagnosis of bacterial vaginosis was taken. At operation, the endometrial cavity was opened by splitting the anterior wall of the uterus and an endometrial swab and biopsy were taken for microbial culture and scanning electron microscopy for mycoplasma, ureaplasma, and *Gardnerella vaginalis.*

None of the patient had any history of bacterial vaginosis, troublesome vaginal discharge, or any obstetric or gynaecological complications. Microscopic examination of the high vaginal swabs were all normal except one with possible bacterial vaginosis. Microbial culture and scanning electron microscopy showed no mycoplasma, ureaplasma, or *Gardnerella vaginalis.*

Although there is definite association of colonisation of the endometrium by mycoplasma and ureaplasma in patients with bacterial vaginosis, as we showed in our previous study, this study did not show any association of DUB with bacterial vaginosis, *Gardnerella vaginalis*, mycoplasma, or ureaplasma. Any significant association of DUB and bacterial vaginosis appears unlikely, as the age group of the majority of patients with DUB, as in this study, is also different from the age group for bacterial vaginosis.

B BHATTACHARJEE
A K GHOSH
Department of Genitourinary Medicine, Arrowe Park Hospital, Upton, Wirral, Merseyside, L49 5PE

A MURRAY
Department of Obstetrics and Gynaecology

A E MURRAY
Department of Medical Microbiology

Correspondence to: Dr Bhattacharjee

1 Sweet RL. Role of bacterial vaginosis in pelvic inflammatory disease. *Clin Infect Dis* 1995;**20**(suppl 2):s271–5.
2 Hay PE, Lamont, Taylor-Robinson D, *et al.* Abnormal bacterial colonisation of genital tract and preterm delivery and late miscarriage. *BMJ* 1994;**308**:295–5.
3 Korn AP, Bolan G, Padian, *et al.* Plasma cell endometritis in women with bacterial vaginosis. *Obstet Gynaecol* 1995;**85**:387–90.
4 Keane FFA,Thomas B, Renton A, *et al.* Investigation into possible role of bacterial vaginosis in non-gonococcal urethritis. *Genitourin Med* 1997;**73**:373–7.
5 Bhattacharjee B, Sunderland D, Herrington S, *et al.* Scanning electron microscopy of endometrial biopsy of patients with bacterial vaginosis shows morphology resemblimg mycoplasma/ureaplasma. *Sex Transm Inf* 1999; **75**:202–10.

Accepted for publication 7 June 2000

Ethnicity and country of acquisition of HIV in the current Leicester genitourinary medicine clinic cohort

EDITOR,—We have surveyed the regular HIV infected attenders in the Leicester genitourinary medicine (GUM) HIV cohort; there are currently 60 men and 16 women. Twenty five per cent are black African and 13% are of Indian/Pakistani/Bangladeshi stock, while 62% are white. This amounts to 19 of 8258 black Africans in the Leicestershire total county population (which includes Leicester central district) being HIV positive. Forty seven of 771 181 white people and 10 of 77 537 Asians in the Leicestershire total county population were also HIV positive (Leicester City Council, from 1991 census figures, 2000, personal communication).

For acquisition of HIV related to ethnicity, the results are as displayed in table 1.

In 1997, of those with heterosexually transmitted HIV[1] in the United Kingdom, 3.3% were black Caribbeans, 49% were black African, with 33% being white, and 2.3% were Asian.

In 1999, the Communicable Disease Report[2] stated that, of female HIV infected people in England and Wales, 32% were white people and 49.5% were black Africans, and 2.7% were black Caribbeans, and 1.3% were south Asians.

Compared with the latter England and Wales figures, Leicester appears to have a moderate underrepresentation of black Africans with HIV, and a moderate overrepresentation of Asians in its cohort. This latter figure is to be expected because Leicester's Asian population is 23.7% of the total population of the city (Leicester City Council, 1991 census figures, 2000, personal communication). However, the Asian figure is not that high pro rata, possibly because cultural factors prohibit sex outside marriage.

Quinn *et al*[3] have shown recently that viral load is the chief predictor of the risk of heterosexual transmission of HIV-1, and that transmission is rare among people with levels of less than 1500 copies of HIV-1 RNA per ml.

It may be that HAART (highly active antiretroviral therapy) for HIV infected people has caused transmission to be low in the United Kingdom but, as Cohen says, such a theory has not been proved.[4]

The viral subtype dominant in parts of Africa (clade C), has unique properties that favour sexual transmission.[5] Other factors that make Africans more susceptible to HIV than those who live in more developed countries include lack of host factors that reduce infection risk; the plasma HIV-1 RNA level in seropositive people being higher in sub-Saharan Africans; the lack of mutations in the gene for chemokine receptor 5; circumcision status, with most men in Africa being uncircumcised; and the high prevalence of ulcerative sexually transmitted diseases.[4] Some of these factors will operate for Asian patients born in Africa.

Thus, ethnicity and country of acquisition of HIV in Leicester as elsewhere, is a reflection of interwoven, genetic, environmental and behavioural, political, and geographical factors.[4] Therefore, we cannot just examine nationality in isolation when considering HIV epidemiology. Travellers from Britain to Thailand, the Philippines, India, and Africa especially should be forewarned of the risks of sex and healthcare needle exposure and/or blood transfusions in all travel medicine consultations.

DEREK T P EVANS
VINCENT C RILEY
PETER G FISK
Department of Genito-urinary Medicine, Leicester Royal Infirmary, Leicester LE1 5WW

Correspondence to: Dr Evans

1 *Communicable Disease Report.* 1999;**9**(No 22): 200.
2 *Communicable Disease Report.* 1999;**9**(No 26): 236.
3 Quinn TC, Wawer MJ, Sewankambo N, *et al.* Viral load and heterosexual transmission of human immunodeficiency virus type I. *N Engl J Med* 2000;**342**:921–9.
4 Cohen MS. Preventing sexual transmission of HIV—new idea from sub-Saharan Africa. *N Engl J Med* 2000;**342**:970–2.
5 Ping LH, Nelson JA, Hoffman IH. Characterisation of V3 sequence heterogenicity in sub-type C human immunodeficiency virus type I isolates from Malawi underrepresentation of X4 variants. *J Virol* 1999;**73**: 6271–81.

Accepted for publication 14 June 2000

Table 1 Table of ethnicity in relation to country of acquisition of HIV, as found in the Leicester genitourinary medicine clinic HIV cohort, and assessed in April 2000

	Ethnicity			
Country of acquisition	*Asian*	*African*	*White*	*Total (%)*
Asia	2 (3%)	2 (3%)	2 (3%)*	9%
Africa	2 (3%)	15 (25%)	2 (3%)	31%
UK	2 (3%)	2 (3%)	43 (54%)	60%
Total	9%	31%	60%	100%

*Thailand.